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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,236	02/28/2004	Luther Trawick	TRA-04-001	7961
40816	7590	11/15/2005		
BRADLEY D. GOLDIZEN 505 SOUTH INDEPENDENCE BOULEVARD, SUITE 102 VIRGINIA BEACH, VA 23452			EXAMINER CHHABRA, ARUN S	
			ART UNIT	PAPER NUMBER
			3764	

DATE MAILED: 11/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/789,236

Applicant(s)

TRAWICK ET AL.

Examiner

Arun S. Chhabra

Art Unit

3764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-19 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 July 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 7/22/2004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Drawings***

The drawings are objected to because the letter "S" in Figure 2 looks like the number "5" and can be confused for a reference number 5. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

The disclosure is objected to because of the following informalities:

On page 3, the inventor's name of Patent Number 4,403,772 is spelled incorrectly. The name should be "Stangle".

On page 7, paragraph 0021, line 3, the word "places" should be "placed."

On page 12, paragraph 0042, line 2, "if" should be "in."

On page 17, paragraph 0058, line 3, the phrase "as can easily seen," is confusing and should be revised perhaps by making it "as can easily be seen."

Appropriate correction is required.

### ***Claim Objections***

Claims 1, 3, 14, and 17 are objected to because of the following informalities:

In line 2 of claim 1, "support such that a the" should be "support such that the".

The last line of claim 3 should be "an axis" instead of "a axis".

Claim 14, lines 4-5 are confusing to a reader and should be revised for clarity.

In claim 17, "position" should be "positioned".

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 12, 13 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The "group consisting of linear actuators, direct drive modules and motors" is not given a clear description in the specification and it is uncertain as to how they are used. Thus the claims are rendered as indefinite.

Claim 2 recites the limitation "said rotating motor mount plate" in lines 9-10 of the claim. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Genin (US Patent Number 3,888,023).

Genin discloses an electromechanical sparring partner having a base with legs, reference numbers 11 and 12, a torso and torso movement assembly, reference numbers 14 and 16, a right and left arm, 15, with respective arm actuation assemblies for raising, lowering, extending and retracting the arms, and a controller on the front face of housing 12 using batteries as a power source.

Claims 6-9, 14 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Wilson et al (US Patent Number 4,819,934).

Wilson in Figures 1-5 shows a sparring partner with a head, arms, torso and a base providing a steady platform. Wilson in column 1, line 48 – column 2, line 52, discloses a means for raising, extending, retracting, straightening and bending the arm that includes a motor and also discloses structural components of the torso made from a high molecular weight polyethylene. The torso also includes an electric motor, reference number 20, for movement of the arms. In column 3, line 67 – column 4, line 45, Wilson discloses a means for tilting and twisting the torso and describes a foam (polystyrene) covering for the electromechanical sparring partner.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 4 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Genin in view of Huang et al. (US Patent Number 6,871,115).

Genin discloses the claimed invention except for the three motors used for tilting and twisting the torso. Rather, Genin discloses only one motor that is able to tilt and twist the torso about multiple axes. Huang teaches that it is known to use three different motors as set forth in column 3, lines 16 - 25 to provide rotation or movement about three different axes. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Physical Training Robot as taught by Genin, with three motors instead of one for torso movement as taught by Huang, since such a modification would provide the Physical Training Robot with three motors for providing tilting movement and twisting rotation about three different axes.

In regards to claim 4, Genin, in Figure 2 and column 5, lines 28-48 shows rocker and tie rod linkages connected to motors and shafts for moving the torso of the Physical Training Robot.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Genin in view of Huang as applied to claims 3 and 4 above, and further in view of Wakaizumi et al. (US Patent Number 6,324,444).

Genin and Huang disclose the claimed invention except for the ball joints at the end of the tie rod linkages. Wakaizumi teaches that it is known to use ball joints as set forth in column 2, lines 38-55 to provide for the smooth rotation of a shaft. Since the rod linkages in the applicant's invention need to be rotated, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the robot as taught by Genin in view of Huang, with ball joints to connect the rod linkages as taught by Wakaizumi, since such a modification would provide the robot with ball joints for providing smooth rotation for the rod linkages about an axis.

Claims 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson in view of Genin.

Wilson discloses the claimed invention except for the use of any one of linear actuators, direct drive modules and motors for the twisting and tilting of the torso in a side-to-side and front-to-back direction. Genin teaches that it is known to use any from a group of linear actuators, drive modules and motors as set forth in claims 1-3 and in column 3, lines 10-67 and column 6, lines 24-60, to provide a means for twisting and tilting the torso in a side-to-side and front-to-back direction. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Automated Boxing Machine as taught by Wilson, with different actuators and motors as taught by Genin, since such a modification would provide the Automated Boxing Machine with motors for providing a means for twisting or tilting the torso in a side-to-side or front-to-back direction.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson in view of Paoletti (US Patent Number 4,995,610).

Wilson discloses the claimed invention except for the solenoid. Paoletti teaches that it is known to use a solenoid along with two motors as set forth in column 4, line 40-65 as a way of swinging the arm and engaging in punching movements. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Automated Boxing Machine as taught by Wilson, with solenoids as taught by Paoletti, since such a modification would provide the Automated Boxing Machine with solenoids and motors for enabling the machine to punch, swing, extend, retract and raise its arms.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson in view of Wilde (US Patent Number 5,100,138).

Wilson discloses the claimed invention except for the sensor. Wilde teaches that it is known to use a sensor or sensing means as set forth in claims 5-7 and in column 2, lines 34-42 to provide a way of detecting if another fighter is nearby and consequently responding to it. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Automated Boxing Machine as taught by Wilson, with a sensor as taught by Wilde, since such a modification would provide the Automated Boxing Machine with a sensor allowing for a method of detection of an opponent and a subsequent response by the machine.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson in view of Franey (US Patent Number 5,803,877).

Wilson discloses the claimed invention except for the sensor. Franey teaches that it is known to use a sensor as set forth in column 7, lines 30-36 to provide a way of detecting the force and frequency of a punch. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Automated Boxing Machine as taught by Wilson, with a sensor as taught by Franey, since such a modification would provide the Automated Boxing Machine with a sensor for the detection of the timing and strength of a punch.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

***Allowable Subject Matter***


Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arun S. Chhabra whose telephone number is 571-272-7330. The examiner can normally be reached on M-F 8:30-5.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Cronin can be reached on 571-272-4536. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**Stephen K. Cronin**  
Primary Examiner